

REMARKS/ARGUMENTS

Reconsideration and allowance of this application are respectfully requested.

Currently, claims 1-5 and 7-13 are pending in this application.

Allowable Subject Matter:

The Office Action indicated that claims 5 and 12 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. By this Amendment, claims 5 and 12 have been rewritten in independent form. Claims 5 and 12 are thus allowable.

Rejection Under 35 U.S.C. §103:

Claims 1-3, 7-10 and 13 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Udagawa (JP '419) in view of Frick et al (U.S. '818, hereinafter "Frick"). Applicant respectfully traverses this rejection.

In order to establish a prima facie case of obviousness, all of the claim limitations must be taught or suggested by the prior art. The combination of Udagawa and Frick fails to teach or suggest all of the claim limitations. For example, the combination fails to teach or suggest "setting a correction factor and acquiring correction information by (a) reading the output from the pressure sensor and an estimated temperature by the temperature estimating means in accordance with the output from the pressure sensor **when the engine is not running** (emphasis added)," as required by independent claim 1 and its dependents. Similarly, the combination fails to teach or suggest "acquiring pressure sensor correction

factor information by reading out from the pressure sensor an estimated pressure sensor temperature when the engine is not running (emphasis added)," as required by independent claim 8 and its dependents.

The differential pressure across a diesel particulate filter becomes substantially zero, namely the differential pressure is stable, when the engine is not running. In contrast, pressures at the upstream and downstream sides of the diesel particulate filter vary (the differential pressure varies) depending on the operating condition of the engine, even when the engine is running at its idling operation (such as the idling operation of Udagawa). Accordingly, the present invention advantageously provides detection of the differential pressure in a more precise manner because this pressure differential detection is made when the engine is not running. In the present invention, an estimated temperature is also read out when the engine is not running.

Page 3, lines 4 *et seq.* of the Office Action states "means (Figure 3) for setting a correction factor (I) and acquiring correction information by (a) reading output from the pressure sensor when the engine is not running...." However, Applicant respectfully submits that the specifically identified Fig. 3 (and all other portions of Udagawa) fails to teach or suggest reading output from the pressure sensor when the engine is not running, let alone also reading out an estimated temperature when the engine is not running. Frick fails to remedy this deficiency of Udagawa. Section 6 (arguments section) of the final Office Action fail to address these limitations. Consequently, the combination further fails to teach or suggest determining offset correction factors for the pressure sensor, offset errors being the

difference between the read-out output from the pressure sensor and an output from the pressure sensor at a time when the pressure is zero.

In Udagawa, when the engine 1 is determined to be in a specified operating state (which is an idling operation), an upstream pressure value P1 and a downstream pressure value P2 are respectively detected to obtain a pressure ratio or a pressure difference. A zero-point correction to a detected pressure value Pm of a downstream pressure sensor 6 is then conducted. The zero-point correction is carried out only for the downstream pressure sensor. Accordingly, detection of a differential pressure can be more precisely accomplished in the present invention since Udagawa does not disclose performing the zero-point correction for the upstream pressure sensor.

Accordingly, Applicant respectfully requests that the rejection of claims 1-3, 7-10 and 13 under 35 U.S.C. §103 over Udagawa and Frick be withdrawn.

Claims 4 and 11 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Udagawa in view of Frick, and further in view of Clingman, Jr. et al (U.S. '687, hereinafter "Clingman"). Applicant respectfully traverses this rejection. Since claims 4 and 11 depend at least indirectly from independent claims 1 and 8, respectively, Applicant submits that the above comments made regarding Udagawa and Frick apply equally to these claims. Clingman fails to remedy the above-described deficiencies of this combination. Applicant thus respectfully requests that the rejection of claims 4 and 11 be withdrawn.

KUBOSHIMA et al
Application No. 10/776,244
October 17, 2005

Conclusion:

Applicant believes that this entire application is in condition for allowance and respectfully requests a notice to this effect. If the Examiner has any questions or believes that an interview would further prosecution of this application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: 

Raymond Y. Mah
Reg. No. 41,426

RYM:sl
901 North Glebe Road, 11th Floor
Arlington, VA 22203
Telephone: (703) 816-4000
Facsimile: (703) 816-4100